

## CLAIMS:

1. A large-diameter SiC wafer, wherein a diameter is increased as a double structure in which a polycrystal SiC is grown up to be in a size, which  
5 corresponds to a handling device of an existing semiconductor manufacturing line, around an outer circumference of a small diameter  $\alpha$ -SiC single crystal wafer.
2. The large-diameter SiC wafer according to claim 1, wherein at least two or more of said small-diameter  $\alpha$ -SiC single crystal wafers are placed.
- 10 3. The large-diameter SiC wafer according to claim 1, wherein said polycrystal SiC is a  $\beta$ -SiC manufactured by a CVD method.
4. The large-diameter SiC wafer according to claim 1, wherein said polycrystal SiC has high reflectivity with respect to laser light for wafer detection.
- 15 5. A manufacturing method of a large-diameter SiC wafer comprising the steps of: growing polycrystal SiC from at least one surface side of a small diameter  $\alpha$ -SiC single crystal wafer so as to be in a size of an outer diameter corresponding to a handling device of an existing semiconductor manufacturing line; and thereafter grinding the polycrystal SiC on the surface  
20 of the  $\alpha$ -SiC single crystal wafer to manufacture an increased-diameter SiC of a double structure in which the polycrystal SiC is grown around an outer circumference of the small-diameter  $\alpha$ -SiC single crystal wafer.